



## Complete Summary

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### TITLE

Hysterectomy: hysterectomy area rate.

### SOURCE(S)

AHRQ quality indicators. Guide to inpatient quality indicators: quality of care in hospitals -- volume, mortality, and utilization [version 3.0]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2006 Feb 20. 94 p.

## Measure Domain

### PRIMARY MEASURE DOMAIN

Use of Services

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### SECONDARY MEASURE DOMAIN

Does not apply to this measure

## Brief Abstract

### DESCRIPTION

This measure is used assess the number of hysterectomies per 100,000 female population.

### RATIONALE

Hysterectomy is performed on patients with a number of indications, such as recurrent uterine bleeding, chronic pelvic pain, or menopause, usually in some combination. No ideal rate for hysterectomy has been established. Hysterectomy is a potentially overused procedure. Although the ideal rate for hysterectomy has not been established, several studies have noted relatively high rates of inappropriate indicators for surgery (16-70%).

As an area utilization indicator, hysterectomy is a proxy for actual quality problems. The indicator has unclear construct validity, as high utilization of hysterectomy has not been shown to necessarily be associated with higher rates

of inappropriate utilization. Additional clinical risk adjustment, such as for parity, may be desirable. Caution should be maintained for hysterectomy rates that are drastically below or above the average or recommended rates.

#### PRIMARY CLINICAL COMPONENT

Hysterectomy

#### DENOMINATOR DESCRIPTION

Female population in county or Metro Area associated with Federal Information Processing Standards (FIPS) code of patient's residence or hospital location, age 18 years or older

#### NUMERATOR DESCRIPTION

Number of hysterectomies\* in any procedure field among female patients age 18 years and older. Exclude discharges with genital cancer\* or pelvic or lower abdominal trauma\* in any diagnosis field, Major Diagnostic Category (MDC) 14 (pregnancy, childbirth, puerperium), and MDC 15 (newborns or other neonates).

\*Refer to the Technical Specifications document in the "Companion Documents" field for International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes and Diagnosis-related Groups (DRGs).

### Evidence Supporting the Measure

#### EVIDENCE SUPPORTING THE VALUE OF MONITORING USE OF SERVICE

- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

### Evidence Supporting Need for the Measure

#### NEED FOR THE MEASURE

Monitoring and planning  
Variation in use of service

#### EVIDENCE SUPPORTING NEED FOR THE MEASURE

AHRQ quality indicators. Guide to inpatient quality indicators: quality of care in hospitals -- volume, mortality, and utilization [version 3.0]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2006 Feb 20. 94 p.

### State of Use of the Measure

#### STATE OF USE

Current routine use

#### CURRENT USE

External oversight/State government program  
Monitoring and planning

#### Application of Measure in its Current Use

#### CARE SETTING

Hospitals

#### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians  
Public Health Professionals

#### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Counties or Cities

#### TARGET POPULATION AGE

Age greater than or equal to 18 years

#### TARGET POPULATION GENDER

Female (only)

#### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

#### Characteristics of the Primary Clinical Component

#### INCIDENCE/PREVALENCE

In a random sample of 642 hysterectomies, 16% of procedures were inappropriate based on patient indications, and 25% were uncertain. Another study found a 70% rate of overall inappropriate indications, varying from 45% to 100% across diagnoses indicative of hysterectomy.

#### EVIDENCE FOR INCIDENCE/PREVALENCE

Bernstein SJ, McGlynn EA, Siu AL, Roth CP, Sherwood MJ, Keesey JW, Kosecoff J, Hicks NR, Brook RH. The appropriateness of hysterectomy. A comparison of care in seven health plans. Health Maintenance Organization Quality of Care Consortium. JAMA 1993 May 12; 269(18): 2398-402. [PubMed](#)

Broder MS, Kanouse DE, Mittman BS, Bernstein SJ. The appropriateness of recommendations for hysterectomy. Obstet Gynecol 2000 Feb; 95(2): 199-205.

#### ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

#### BURDEN OF ILLNESS

Unspecified

#### UTILIZATION

Unspecified

#### COSTS

Unspecified

### Institute of Medicine National Healthcare Quality Report Categories

#### IOM CARE NEED

Not within an IOM Care Need

#### IOM DOMAIN

Not within an IOM Domain

### Data Collection for the Measure

#### CASE FINDING

Both users and nonusers of care

#### DESCRIPTION OF CASE FINDING

Female population in county or Metro Area associated with Federal Information Processing Standards (FIPS) code of patient's residence or hospital location, age 18 years or older

#### DENOMINATOR SAMPLING FRAME

Geographically defined

#### DENOMINATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

Female population in county or Metro Area associated with Federal Information

Processing Standards (FIPS) code of patient's residence or hospital location, age 18 years or older

Exclusions  
Unspecified

#### RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are not equally eligible to appear in the numerator

#### DENOMINATOR (INDEX) EVENT

Patient Characteristic

#### DENOMINATOR TIME WINDOW

Time window is a single point in time

#### NUMERATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

Number of hysterectomies\* in any procedure field among female patients age 18 years and older.

##### Exclusions

Exclude discharges with genital cancer\* or pelvic or lower abdominal trauma\* in any diagnosis field, Major Diagnostic Category (MDC) 14 (pregnancy, childbirth, puerperium), and MDC 15 (newborns or other neonates).

\*Refer to the Technical Specifications document in the "Companion Documents" field for International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes and Diagnosis-related Groups (DRGs).

#### MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

#### NUMERATOR TIME WINDOW

Institutionalization

#### DATA SOURCE

Administrative data

#### LEVEL OF DETERMINATION OF QUALITY

Does not apply to this measure

#### PRE-EXISTING INSTRUMENT USED

Unspecified

### Computation of the Measure

#### SCORING

Rate

#### INTERPRETATION OF SCORE

Undetermined

#### ALLOWANCE FOR PATIENT FACTORS

Analysis by subgroup (stratification on patient factors, geographic factors, etc.)

#### DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

Observed (raw) rates may be stratified by areas (Metro Area or counties), age groups, and race/ethnicity categories.

Risk adjustment of the data is recommended using age.

Application of multivariate signal extraction (MSX) to smooth risk adjusted rates is also recommended.

#### STANDARD OF COMPARISON

External comparison at a point in time

External comparison of time trends

Internal time comparison

### Evaluation of Measure Properties

#### EXTENT OF MEASURE TESTING

Each potential quality indicator was evaluated against the following six criteria, which were considered essential for determining the reliability and validity of a quality indicator: face validity, precision, minimum bias, construct validity, fosters real quality improvement, and application. The project team searched Medline for articles relating to each of these six areas of evaluation. Additionally, extensive empirical testing of all potential indicators was conducted using the 1995-97 Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID) and Nationwide Inpatient Sample (NIS) to determine precision, bias, and construct validity. Table 2 in the original measure documentation summarizes the

results of the literature review and empirical evaluations on the Inpatient Quality Indicators. Refer to the original measure documentation for details.

#### EVIDENCE FOR RELIABILITY/VALIDITY TESTING

AHRQ quality indicators. Guide to inpatient quality indicators: quality of care in hospitals -- volume, mortality, and utilization [version 3.0]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2006 Feb 20. 94 p.

### Identifying Information

#### ORIGINAL TITLE

Hysterectomy area rate (IQI 28).

#### MEASURE COLLECTION

[Agency for Healthcare Research and Quality \(AHRQ\) Quality Indicators](#)

#### MEASURE SET NAME

[Agency for Healthcare Research and Quality \(AHRQ\) Inpatient Quality Indicators](#)

#### DEVELOPER

Agency for Healthcare Research and Quality

#### ADAPTATION

The hospital-based rate of hysterectomy was included in the original Healthcare Cost and Utilization Project Quality Indicator (HCUP QI) set.

#### PARENT MEASURE

Hysterectomy (Agency for Healthcare Research and Quality)

#### RELEASE DATE

2002 Jun

#### REVISION DATE

2006 Feb

#### MEASURE STATUS

This is the current release of the measure.

#### SOURCE(S)

AHRQ quality indicators. Guide to inpatient quality indicators: quality of care in hospitals -- volume, mortality, and utilization [version 3.0]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2006 Feb 20. 94 p.

## MEASURE AVAILABILITY

The individual measure, "Hysterectomy Area Rate (IQI 28)," is published in "AHRQ Quality Indicators. Guide to Inpatient Quality Indicators: Quality of Care in Hospitals -- Volume, Mortality, and Utilization." This document is available in [Portable Document Format \(PDF\)](#) from the [Inpatient Quality Indicators Download](#) page at the Agency for Healthcare Research and Quality (AHRQ) Quality Indicators Web site.

For more information, please contact the QI Support Team at [support@qualityindicators.ahrq.gov](mailto:support@qualityindicators.ahrq.gov).

## COMPANION DOCUMENTS

The following are available:

- AHRQ quality indicators. Inpatient quality indicators: technical specifications [version 3.0]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2006 Feb 20. 34 p. This document is available in Portable Document Format (PDF) from the [Agency for Healthcare Research and Quality \(AHRQ\) Quality Indicators Web site](#).
- AHRQ quality indicators. Inpatient quality indicators: software documentation [version 3] - SPSS. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2006 Feb 20. 40 p. (AHRQ Pub.; no. 02-R208). This document is available in PDF from the [AHRQ Quality Indicators Web site](#).
- AHRQ quality indicators. Inpatient quality indicators: software documentation [version 3] - SAS. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2006 Feb 20. 45 p. (AHRQ Pub.; no. 02-R208). This document is available in PDF from the [AHRQ Quality Indicators Web site](#).
- AHRQ quality indicators. Software documentation: Windows [version 3.0]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2006 Feb 20. 72 p. This document is available in PDF from the [AHRQ Quality Indicators Web site](#).
- Remus D, Fraser I. Guidance for using the AHRQ quality indicators for hospital-level public reporting or payment. Rockville (MD): Agency for Healthcare Research and Quality; 2004 Aug. 24 p. This document is available in PDF from the [AHRQ Quality Indicators Web site](#).
- AHRQ summary statement on comparative hospital public reporting. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2005 Dec. 1 p. This document is available in PDF from the [AHRQ Quality Indicators Web site](#).
- Guidance for using the AHRQ quality indicators for public reporting or payment - appendix A: current uses of AHRQ quality indicators and considerations for hospital-level reporting. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2005 Dec. A1-13 p. This document is available in PDF from the [AHRQ Quality Indicators Web site](#).
- Guidance for using the AHRQ quality indicators for public reporting or payment - appendix B: public reporting evaluation framework--comparison of recommended evaluation criteria in five existing national frameworks.



Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2005 Dec. B1-4 p. This document is available in PDF from the [AHRQ Quality Indicators Web site](#).

- AHRQ inpatient quality indicators - interpretive guide. Irving (TX): Dallas-Fort Worth Hospital Council Data Initiative; 2002 Aug 1. 9 p. This guide helps you to understand and interpret the results derived from the application of the Inpatient Quality Indicators software to your own data and is available in PDF from the [AHRQ Quality Indicators Web site](#).
- UCSF-Stanford Evidence-based Practice Center. Davies GM, Geppert J, McClellan M, et al. Refinement of the HCUP quality indicators. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2001 May. (Technical review; no. 4). This document is available in PDF from the [AHRQ Quality Indicators Web site](#).
- HCUPnet, Healthcare Cost and Utilization Project. [internet]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2004 [Various pagings]. HCUPnet is available from the [AHRQ Web site](#).

#### NQMC STATUS

This NQMC summary was completed by ECRI on February 3, 2006. The information was verified by the measure developer on March 6, 2006.

#### COPYRIGHT STATEMENT

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